YEIP 2000-024 2000

## **GEOLOGICAL REPORT**

for the

ST. CYR Property

Watson Lake Mining Division, Southcentral Yukon Territory
Mapsheets 105-F-09, 10
Latitude 61° 37' N, Longitude 132°20' W
NTS 6839000 N / 644000 E

Prepared for:

EAGLE PLAINS RESOURCES LTD. 2720 17<sup>th</sup> St. S Cranbrook, B.C. V1C 4H4

By

C.C. Downie, P.Geo. EXPLORATION MANAGER 122 13<sup>th</sup> Ave. S Cranbrook, B.C. V1C 2V5

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**JANUARY 17, 2001** 

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**JANUARY 17, 2001** 

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### **SUMMARY**

The ST CYR property consists of 48 contiguous units located in the Cloutier Creek / Ketza River area of the Yukon Territories, approximately 37 km S. S. E. of Ross River. The claims are centered at Latitude 61° 37' N, Longitude 132°20' W; NTS 6839000 N / 644000 E on NTS Mapsheet 105-F-9 and are administered through the Watson Lake Mining Recorder. The claims are owned 100% by Eagle Plains Resources Ltd.

The claims overlie Mississippian aged intermediate to felsic volcanic rocks and similar aged sediments of the Pelly Mountain Volcanic Belt. The stratigraphy includes carbonates and silty argillite, as well as a volcanic package consisting of felsic and intermediate tuffs, crystal tuffs, and volcaniclastic debris flows. Pre 2000 geological fieldwork on the properties identified favorable stratigraphy and mineralization associated with Volcanogenic Massive Sulphide (VMS) deposits including extensive barium – lead – zinc - silver soil geochemical anomalies. The 2000 Eagle Plains Resources field program consisted of geological mapping and soil geochemical sampling followed by a 104.5 meter / 353 foot diamond drilling program that targeted geochemically anomalous stratigraphy.

The total cost of the 2000 geological exploration work on the ST CYR property was \$54,339.68.

### LOCATION AND ACCESS (Fig.1, following page)

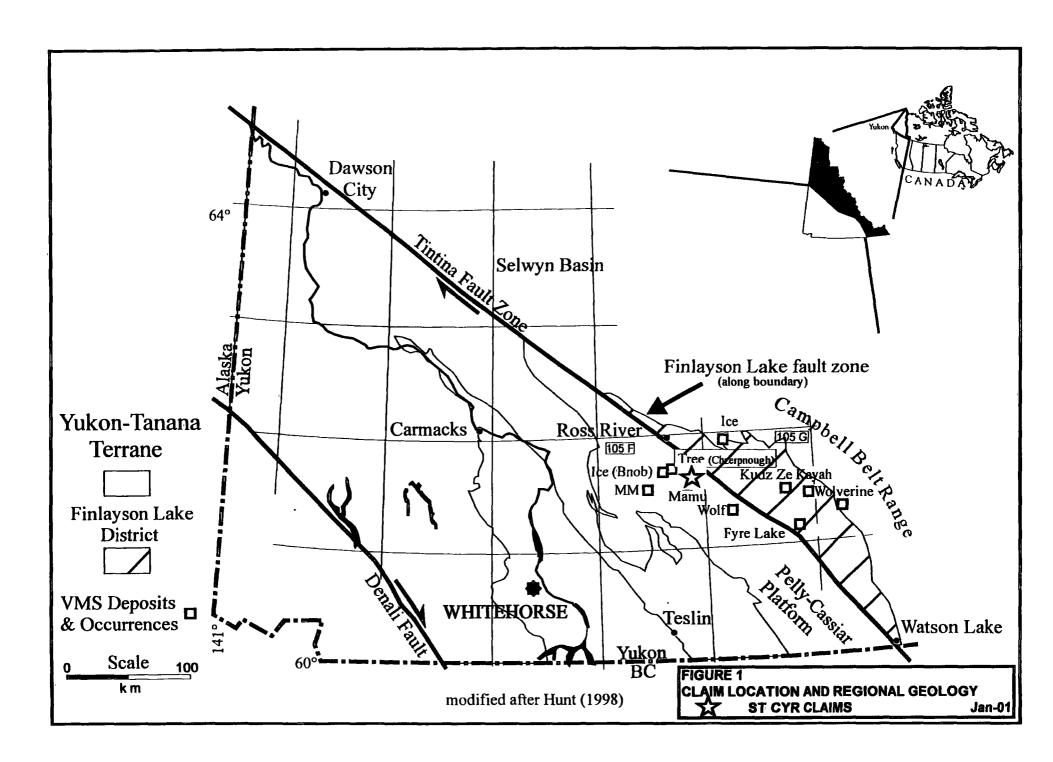
The ST CYR claims are located in the south-central Yukon Territory between the Ketza River and McConnell River drainages, centered at approximately Latitude 61° 35' N, Longitude 132°29'W; NTS 6832000 N / 633500 E. Access to the property is by helicopter, with the nearest base in Ross River approximately 35 km north of the property boundary. Gear and personnel mobilization was carried out from the Ketza River Mine road located approximately 1 km east of the property boundary. The claims cover alpine to subalpine terrain within the St. Cyr Range of the Pelly Mountains. Elevations on the claims range from 1220 to 1450 meters, with topography ranging from moderate to very steep. Outcrop exposure is very limited.

### **TENURE** (Fig. 2 in pocket)

The property consists of 48 contiguous claims located on the Cloutier Creek and Pass Peak Map sheets. The claims are owned 100% by Eagle Plains Resources Ltd., with an underlying 1% NSR carried by Bernie Kreft of Whitehorse, Yukon.

Claim Name	Tenure Number	<b>Mapsheet</b>	<b>Expiry Date</b>
CY 1-26	YB90023-048	105F-09	2005/09/26
ST 9-10	YB90539-540	105F-09	2000/10/09
ST 11-22	YB90541-552	105F-09	2005/10/09
ST 27-34	YB90553-560	105F-09	2005/10/09

TOTAL: 48 units



### HISTORY AND PREVIOUS WORK

The St Cyr property area was first staked by Canadian Occidental Petroleum to cover a Mo-Cu-Ba-F stream sediment anomaly identified by the GSC Uranium Reconnaissance Program. The Tier group of claims was staked in 1979, and mapping, radiometric and soil geochem surveys were carried out in 1979-1980. This work delineated an arcuate 1500m x 300m soil geochemical anomaly with up to 122 ppm Cu, 1350 ppm Zn and 4.8 ppm Ag in an area underlain by dacitic volcanic rocks. Samples of pyritic dacite tuff returned up to 675 ppm Zn and 98 ppm Cu. The area was re-staked by Bernie Kreft as the Cy and ST claims during the fall of 1997 on behalf of the Eagle Plains Resources and Miner River Resources joint venture.

A one day property exam undertaken by Bernie Kreft in 1998 on behalf of the Eagle Plains / Miner River joint venture included minor mapping as well as rock and soil sampling. The work was concentrated on a north-south trending ridge that provides a near true cross-cut of steeply dipping geological strata in the centre of the property. A single line of soil/talus fine samples were taken at 25m to 50m spacings, just below the crest of the north-south ridge. Results showed several samples with anomalous Zn +/- Pb +/- Cu, but most of these were either single station and single element highs, or were explained by nearby secondary veining. The most significant anomaly consisted of three consecutive stations (50m spacings) with high Zn (3360 ppm), Cu (165 ppm), Cd (11.3 ppm) and Pb (109 ppm), in an area underlain by pyritic felsic ash and lapilli tuff.

Work in 1999 consisted of grid soil sampling, rock sampling and minor mapping (see Kreft, Bernie (1999): Summary Report on the ST CYR Claim Group, Dec. 19, 1999 FFAC). Soils were taken on a 300m x 900m (25m x 100m spacing) grid roughly centered on the highest 1998 zinc soil geochemical value. Results were contoured at the  $84^{th}$ ,  $72^{nd}$  and  $40^{th}$  percentile of a total metal value based on the following formula: Zn + Ba + (Pb x 1.5) + (Cu x 2) = total metal. These results were further filtered using a minimum zinc value (200 ppm) needed for a sample to be considered anomalous. Three anomalous areas, all of which parallel stratigraphy, were outlined using the above method.

Anomaly A: Extends for 900 metres along the length of the grid and is open at both ends. Some mineral zonation is apparent, with barium/zinc predominating at the west end, copper/zinc in the centre and zinc/silver at the east end. Peak metal values within the anomaly are: 2064 ppm Zn, 161 ppm Cu, 137 ppm Pb, 1417 ppm Ba and 4.0 ppm Ag. This anomaly was the target of the 2000 diamond drill hole.

Anomaly B: Is a 300 metre long (open to the east) Zn/Pb/Ba anomaly located slightly north of Anomaly A, at the east end of the grid. Peak metal values are: 1582 ppm Zn, 56 ppm Cu, 385 ppm Pb, 744 ppm Ba and 2.4 ppm Ag. Metal values are highest at the eastern extremity of the anomaly.

Anomaly C: Is located along the south edge of the grid, near its west end. Peak metal values are: 1942 ppm Zn, 106 ppm Cu, 79 ppm Pb and 759 ppm Ba. There are no silver values associated with this anomaly.

Prospecting was concentrated in the vicinity of the highest 1998 zinc soil geochemical value, while a minor amount of reconnaissance type work was conducted throughout the remainder of the grid area. This work resulted in the collection of 19 rock samples, and 20 close-spaced soil/talus fine samples. The soil/talus fine samples were taken in a single line (6.25 metre spacing) designed to cross-cut stratigraphy in the vicinity of the highest 1998 zinc in soil value. The highest metal values were found in the area of chlorite altered quartz feldspar crystal tuff subcrop. Samples Cy-47 to Cy-60 averaged 2940 ppm Zn over 82.5m from proximally derived talus fines overlying the crystal tuff unit. Maximum talus fine values were 6148 ppm

Zn, 179 ppm Pb, 257 ppm Cu and 746 ppm Ba, along with occasional highly anomalous tungsten and cadmium.

Rock samples taken in the area confirm the tenor of mineralization associated with the unit. The average of 6 representative samples (BYCR2-7) of chlorite altered, quartz-feldspar crystal tuff float and subcrop taken in the area of the talus fine anomaly averaged 3189 ppm zinc, with a high value of 4080 ppm. The samples were also enriched in copper(max. 217 ppm), cadmium(max. 38.1 ppm), tungsten(max. 52 ppm) and barite(max. 705 ppm). The highest zinc response was 7031 ppm from a sample of crystal tuff with trace pyrite. This unit is the likely source for anomalies A and C, and may also be responsible for Anomaly B. A sample of fericrete from the east end of anomaly B(PCYR2) contained anomalous values in lead (134 ppm), zinc (2429 ppm) and molybdenum (24 ppm).

Eagle Plains Resources Ltd. provided funding for the 1999 program.

### **GEOLOGY**

### Regional Geology

The volcano-sedimentary rocks which host the Wolf and MM deposits as well as the ST CYR claims form a narrow arcuate belt that extends 80 kilometres along a northwesterly trend within the Pelly Mountains of the southwestern Yukon (Fig. 1). These rocks have been termed the Pelly Mountains Volcanic Belt (PMVB) by Hunt (1999) and are characterized by high potassium content and, locally, bedded barite and volcanogenic massive sulphide deposits and showings. The PMVB is early to middle Paleozoic in age and occurs within the Pelly-Cassiar Platform, considered to be part of ancestral North America (Templeman-Kluit, 1977). The tectonic framework for the Pelly Mountains area is described by Gabrielse and Yorath (1991), Templemen-Kluit and Blusson, (1977) and Gordey (1977) and is summarized below.

The miogeoclinal sequence and related rocks which underlie much of the Pelly Mountains are part of a large area about 70km wide and 600km long that is referred to as the Pelly-Cassiar Platform (PCP) (Fig.1). The PCP formed slightly outboard of, but parallel to the craton edge and consisted of a thick accumulation of volcanic rocks and related sediments upon which shallow water sedimentation, predominantly carbonate, took place until late Devonian time. To the northeast of the PCP during late Proterozoic through to Silurian time, a sequence of shallow water carbonates, tuffaceous shale and andesitic rocks were deposited on the western edge of ancestral North America in the Selwyn Basin and, to the south, in the Kechika Trough.

During late Devonian to Mississippian time, shale, greywacke, and chert pebble conglomerate was deposited over much of the PCP and Selwyn Basin. These rocks were derived from a westerly source, or from locally uplifted parts of the PCP. Felsic igneous activity, including intrusion and volcanism, occurred locally within the PCP, possibly within rifts or graben-like structures created by variable uplift and block faulting within the platformal rocks. Sedimentation resumed within PCP sub-basins during the Upper Triassic.

Deformation of the Paleozoic rocks took place post-Late Triassic and consisted of compression and/or transpression along a northeasterly axis which resulted in northwesterly trending and northeasterly verging folds and southwesterly dipping thrust faults. The Anvil-Campbell allochthon, part of the Omineca Crystalline belt, was emplaced during this event as a large thrust-sheet and is now preserved as local klippen on mountain ridges. An anastomosing system of steeply dipping, strike-slip faults related to movement along the northwesterly trending Tintina Fault cuts the folds and thrust faults and extends for up to 20 kilometres southwest of the Tintina Trench. Late normal faults cross-cut earlier structures and divide the region into a number of panels which commonly represent different structural levels. Cretaceous intrusions develop thermal and structural aureoles in the western part of the Pelly Mountains. Metamorphism and degree of deformation varies from block to block but generally increases in a westerly direction and varies from lower to upper greenschist facies.

The Pelly Mountains Volcanic Belt is composed of localized volcanic centres separated by basins in-filled with sediments and volcaniclastic rocks. Associated with these volcanic rocks are at least two VMS deposits (the Wolf and the MM) and a number of historical showings, including the Chzerpnough (FIRE claims), and the BNOB (ICE claims).

The volcanic rocks are predominantly felsic, but in some areas significant accumulations of andesite to basalt occur. The most common feature of the belt are flows, epi-zonal sills, and small plugs of trachyte. The trachyte flows and/or sills are laterally very extensive, probably due to low magmatic viscosity caused

in part by high alkali element content. Typically the trachyte contains significant amounts of pyrite which gives rise to extensive gossans. The trachytes are commonly cream coloured, with very fine to medium grained phenocrysts of feldspar and rare quartz and are locally massive, amygdaloidal or brecciated. Syenite intrusions have been noted at a number of locations within the PMVB (Mortensen, 1981; Morin, 1977) and are thought to be rounded plugs which represent volcanic feeders.

The structural and stratigraphic relationship of the Pelly Mountains Volcanic Belt with other parts of the Pelly-Cassiar Platform are not always clear. In the southern part in the belt near the Wolf deposit, the PMVB rocks are separated from platformal carbonates and associated sediments by thrust, and possibly, steeply dipping normal faults. In the northeastern most part of the belt, immediately northeast of Ketza River Mine site, the volcanic sequence is very thin (+/- 100m) and is overlain by chert and chert pebble conglomerate and underlain by shale. Both contacts appear conformable but are not well exposed.

The shale and conglomerate are considered age equivalent with the volcanic rocks that have been mapped in conformable relationships by Gordey (1977). On the FIRE (Chzerpnough) and Tree claim area, the PMVB appears to conformably overlie, and in places be intercalated with, a relatively thick sequence of shale and minor greywacke. Similarly on the Mamu property, adjacent to the McConnell River, volcanic rocks conformably overlie an extensive shale-greywacke sequence. On the ICE (BNOB) property, between the Tree-FIRE and Mamu properties, the volcanic rocks are surrounded by an argillite-limestone sequence that appears to be continuous with the shale-sequence of the FIRE property. Gordey (1977) describes a Siluro-Devonian assemblage of shallow water dolomite and platy siltstone which represent a stable marine carbonate bank environment, and are supposed basement for the PMVB. The Siluro-Devonian siltstones, however, are quartz bearing and tan weathering and do not seem to be a good match with the shale attached to the Pelly Mountain Volcanic rocks. Similarly, the younger Triassic sedimentary package has not been observed in contact with PMVB. Consequently, there is little or no contact information that gives a clear indication of the tectono-stratigraphic environment in which the PMVB was deposited other than the nature of the rocks within the belt itself.

The platformal setting on the continental margin, the high potassium geochemistry of the volcanic rocks, and the presence of bedded barite and volcanogenic massive sulphide deposits indicate that the Pelly Mountain Volcanic Belt was likely deposited in a continental rift-type environment (Mortensen and Godwin, 1982). The coarse volcanic debris flows that overlie the Wolf deposit indicate a high energy environment consistent with a graben type structure.

### Property Geology after Greig, 2000 (see Fig. 2 in pocket)

The St. Cyr property is underlain by rocks believed to be Lower to Middle Paleozoic in age. The mainly stratified rocks are folded across west-northwest trending, gently plunging upright folds. The stratigraphy includes both sedimentary and volcanic rocks.

The lowest exposed unit on the property is the "Lower" carbonate that outcrops only at lower elevations on the east side of the property. The upper part of this unit is typically brecciated and dolomitized, and is cherty in part. Conformably overlying this "Lower" carbonate unit is a black silty argillite package. This unit is thin-bedded and field mapping indicates the unit is relatively recessive. This unit is overlain by a relatively resistant, typically well-silicified, thin-bedded, very fine-grained tuff or possibly a dust tuff. This unit is mapped in the field as rusty weathering and relatively resistant. Overlying this silicified tuff is a sequence of turbiditic, tuffaceous fine-grained clastic rocks that include distinctive dolomite-cemented beds Thin to medium bedding in the unit is well developed within a package of tuffaceous sandy and silty turbidites that includes pale brown weathering dolomitic beds. The uppermost unit mapped is a mainly volcanic sequence that hosts the geochemical anomalies on the property. The volcanic sequence consists predominantly of felsic and intermediate ash to fine lapilli tuff, as well as subordinate flows and possibly or dykes. The volcanics typically contain from 1% to 10% finely to locally coarse pyritic disseminations which have weathered to develop widespread gossans. The unit is varicoloured and field mapping indicates a lack of continuity between constituent lithologies. Toward the north, the volcanics grade upward into a sequence of predominately fine-grained clastic rocks that also includes local tuff and rare flows and possibly dykes and sills. This uppermost, more northerly sequence is in contact with the "Upper" carbonate. Field relationships indicate that the contact between the carbonates and volcanics may be along a thrust fault and it is postulated that the "Upper" carbonate may represent a klippe of Silurian aged dolomite (Wheeler, 1981).

Occasional quartz calcite veining has been noted within the sediments along the north side of the volcanics while the sediments to the south are often heavily veined and/or stockworked. Purple fluorite and abundant disseminated siderite has been noted in several outcrops of gossaned pyritic felsic ash tuff located immediately south of "A" Anomaly area. These units contain a maximum of 0.5% disseminated pyrite, as well as calcite filled amygdules and are occasionally cut by quartz-calcite veins which contain trace galena.

The stratigraphy is folded across several open to tight, upright folds which plunge gently (about 15 degrees) to the west-northwest. An axial planar fabric is locally well-developed, in particular within fine-grained clastic rocks. Bedding data on a property scale yields a moderately well-developed girdle with statistically clustered poles to bedding (the N-dipping limbs) yielding a plunge of 14 degrees to the west-northwest (293 degrees). The contact nature and relationship between the northern "Upper" carbonate and rocks to the south is uncertain, but may represent a thrust fault and klippe situation, with older Silurian carbonates overlying younger Pelly Mountain Volcanic Belt volcanics.

### 2000 WORK PROGRAM

The 2000 work program on the ST CYR property was completed in two phases. The initial phase was completed in July 2000 and consisted of geological mapping, ground truthing of past work and soil geochemical sampling. Field crews were stationed in Ross River and mobilized to the property using a Trans North Helicopters Bell 206. Field mapping carried out by C. J. Greig, PhD focused on areas of prospective VMS host stratigraphy on the eastern part of the property. A total of 150 soil samples were collected from extensions to the existing grid.

The second phase of the 2000 ST CYR exploration work involved completion of a single diamond drill hole to test the multi-element geochemical anomaly outlined on the property. Aggressive Diamond Drilling from Kelowna, B.C. was contracted to carry out the work using a modified JKS 300 hydrostatic fly type rig. The diamond drill, supply pump, waterline, drill rods and casing, and camp gear were hauled to the mobilization site on the Ketza River Mine road using two pickup trucks and two trailers. The equipment was mobilized to the ST CYR property using a Trans North Helicopters Bell 206 out of the Ross River base. The four man crew, consisting of a drill foreman, drill helper, geologist and field technician, was billeted in a fly camp established near the drill pad. Travel to the drill was on foot, with the helicopter used only for camp and drill moves. The drilling was completed during the period of August 04 – August 07, 2000. A single shift was used for drilling which averaged approximately 150 feet per 12 hour shift.

Hole #	UTM Coordinates(N/E)	<u>Azimuth</u>	<u>Dip</u>	Depth(meters / feet)
SC00-01	6839043/645248	200°	-70°	104.5 / 353

The drill core was logged on site and selected samples were split and shipped to Northern Analytical services for analysis. Both drillcore and soil samples were analyzed for 30 element ICP using aqua-regia digestion. All samples were collected, handled, catalogued and prepared for shipment by Eagle Plains Resources staff. The coreboxes were labeled with metal tags, stacked near the drill collar and covered with core box lids for protection

All exploration and reclamation work was carried out in accordance to the Yukon Mining Act.

Total 2000 exploration expenditures by Eagle Plains Resources on the ST CYR Property were \$54,339.68 with a total of 30 man-days spent on the property.

### 2000 PROGRAM RESULTS (Fig. 2,3 in pocket)

Results from the Phase 1 work were encouraging. The soil geochemical sampling program continued to define highly anomalous base metal enrichment associated with the surface gossan area. 26 of the 150 samples collected returned Ag, Cu, Pb, Zn and Ba values considered to be highly anomalous and indicative of VMS type environments. On Line 600E, the geochemical anomaly defined by past sampling was extended another 50m south to station 3 + 00S, with the last sample on the line returning a value of 4.6 gm/t Ag, 127 ppm lead and 2051 ppm zinc. The anomaly appears to be associated with a silicified dust tuff unit. Many of the anomalies were either single point or restricted in extent by surrounding values. An interesting single point anomaly was located on Line 400E at 2 + 50S, which returned a value of 1395 ppm vanadium, 127 ppm lead and 3.3 gm/t silver. Background values for vanadium are approximately 25ppm and the 98<sup>th</sup> percentile cut-off is 86.08 ppm.

Although there is very little outcrop on the property, mapping by Charlie Greig outlined a package of intermediate to felsic tuffs and flows. The unit typically had well developed gossanous weathering and typically carried disseminated sulphides with up to 10% finely disseminated pyrite in float samples. This package also hosts the geochemical anomalies defined by grid geochemical sampling. Due to the lack of outcrop in the anomaly area, it was difficult to ascertain whether the geochem anomalies were stratabound in nature or possibly related to quartz-carbonate veining.

The phase two diamond drill hole was designed to test the potential stratigraphic extension of the surface geochemical anomaly defined by the 1998-99 soil geochem results. Diamond Drillhole SC00-01(AZ 200° / DIP -70°) was collared at an elevation of 1650meters(5420 feet) and targeted the down-dip extension of the volcanics that host the geochem anomaly. The hole intersected a package of intermediate to felsic volcanics that included both tuffs and finer grained rocks thought to represent flows or possibly sills or dykes. Bedding angles observed within the volcanics were generally consistent with strikes and dips measured on surface. The volcanics contained fine pyritic disseminations and flood, and likely represent the geochemically anomalous unit defined on surface. In places, the hole showed weakly developed quartz and quartz-carbonate microveining. Alteration included weak chlorite flood and strong pervasive silicification including up to 30% grey quartz flood. Selective sampling of the best looking intervals did not return any anomalous values.

### CONCLUSIONS AND RECCOMMENDATIONS

Results from the 2000 exploration program indicate that the geochemical anomalies are not locally stratabound. The main anomaly on the grid, anomaly A, west of the 0,0 point, appears to lie in the middle of the volcanic sequence and was tested down-dip by DDHSC00-01. Although the stratigraphy intersected correlates with the volcanic units defined on surface by mapping, there was no anomalous base metal enrichment associated with it at depth. This suggests that the geochemical anomaly is likely restricted and possibly reflects enrichment from quartz-carbonate veins seen in float in the geochem anomaly area.

The possibility of massive sulphide mineralization exists on the ST CYR property and evaluation of the property should continue. Lines 600E, 700E and 800E should be extended to the south to determine if there is geochemical enrichment associated with the siliceous dust tuff unit mapped by Greig, which appears to host the geochemical anomaly on the south end of Line 600E. Mapping and sampling should be extended to the west claim boundary. More sampling and ground truthing should be done in the area of Line 400E, 2 + 50 to determine the source of the extremely anomalous vanadium anomaly. Although the geochemical anomalies may not be entirely stratigraphic in nature, their geologic setting (tuffaceous host rocks, with a common spatial association with felsic rocks) is not dissimilar to the setting of massive sulphide mineralization at the Wolf property.

As part of the 2000 work program, more claims were staked to cover prospective VMS stratigraphy in the Ketza River – McConnell River area. As part of this staking, the CLO claim group was staked directly west of the ST CYR claim group.

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# Appendix I

Statement of Qualifications

### CERTIFICATE OF QUALIFICATION

I, Charles C. Downie of 122 13<sup>th</sup> Ave. S. in the city of Cranbrook in the Province of British Columbia hereby certify that:

- 1) I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia (#20137).
- 2) I am a graduate of the University of Alberta (1988) with a B.Sc. degree and have practiced my profession as a geologist continuously since graduation.
- 3) This report is supported by data collected during fieldwork as well as information gathered through research.
- 4) I personally supervised the diamond drilling program, logged the drill core and supervised the core sampling.
- 5) I hold 125,000 shares of Eagle Plains Resources; I Hold an option to purchase a further 25,000 Common Shares of Eagle Plains at \$0.25 per share.

Dated this 17<sup>st</sup> day of January, 2001 in Cranbrook, British Columbia.



Charles C. Downie, P.Geo.

# Appendix II Statement of Expenditures

### STATEMENT OF EXPENDITURES

The following expenses were incurred on the ST CYR Claims, Watson Lake Mining Division, for the purpose of mineral exploration between the dates of June 01 2000 and October 31 2000.

PERSONNEL	
T. Termuende, P. Geo: 2 days x \$425/day	\$850.00
C. Downie, P. Geo: 5 days x \$250.00/day(incl. mob/demob)	
EQUIPMENT RENTAL	
4WD Vehicle: including mileage	\$1448.68
5-Ton Trailer: 3.5 days x \$100.00/day	\$350.00
Radios (2x): 6 days x \$20.00/day	\$120.00
Camp equipment:	\$200.00
Other equipment	
OTHER	
Diamond Drilling:	\$9287.60
Meals/Accommodation/Groceries:	
Project Management Fees(Toklat Resources):	\$4648.90
Fuel:	
Camp Materials:	
Consultants: Bernie Kreft & Associates; Charlie Greig;	
Airfare:	
Helicopter Charter:	
Shipping:	
Analytical:	
Miscellaneous unallocated GST(project management, rental)	
Miscellaneous:	

GEOLOGICAL REPORT ON THE ST CYR PROPERTY

TOTAL: \$54,339.68

TOTAL GST: \$3473.16

## Appendix III

Diamond Drill Logs

Hole ID Page 1 SC00-01 of 3

Location	ST CYR					SURVI	ve	<del></del>	Property	ST CYR	<del></del>	<del></del>
	<del></del>		5420'	Claim No	01 0111							
Azimuth	70°		Elevation	104 5m/353'	Metreage	Azımuth	Inclination	Corr Inclin			<del></del>	
Inclination		450405	Length		<del> </del>	<del> </del>	<del> </del>		Section	O DOMEST	<del></del>	
UTM	6839043N / 6		Core Size	BTW	<u> </u>	<del> </del>			Logged by	C DOWNIE		
Started	AUG 5, 2000		<b>ļ</b>		ļ	<b>}</b> _	<b></b>	ļ	Date Logged	AUG 5-7, 2000		
	AUG 7, 2000		ـــــــــــــــــــــــــــــــــــــ			<b>}</b>	<del> </del>		Drilling Co	AGGRESSIVE		
Purpose		e of geochemical anomaly	y defined on s	iurrace / test	<b></b>	<b></b>	<b></b>		Assayed by	NORTHERN AN	IALYICAL	
<u> </u>	volcanic sequ	ience			L	L	Ĺ	L	<del> </del>			
Core Recove	7								<u> </u>			
From	To	Descrip	otion		From	To	Length		•	Analyses (ppm)	1	
(m)	(m)				(m)	(m)		Ag	Cu	Pb	Zn	Ba Ba
0.0	8'/2 4m	OVERBURDEN/CASING				<u> </u>			<u> </u>	<u> </u>		
L									<u> </u>	<u> </u>		L
24	52	RUBBLE							<u> </u>	<b></b>		
	[	strongly oxidized - rusty w	eathered voto	eanics,						ļ		
L	<u> </u>				<u> </u>	<u> </u>				<u> </u>		
52	28 7	TUFF			5.2	7.3	21	<b>V</b> 01	16	30	118	93
<u> </u>		probably equivalent to C C			L	<u> </u>			<u> </u>	<u> </u>		L
	<u> </u>	geochem anomaly, weakl			<u> </u>		<u> </u>		<u> </u>			
	ļ <u>.</u>	to 1m fine grained silicifie			<u> </u>	<u> </u>	<u> </u>		ļ	J		
L		well developed but good b				<u> </u>			<u> </u>	<b>1</b>		
IL		rock has distinct white spe			<u> </u>	Ĺ			<b></b>	<b></b>		
iL	L	that appears to be the prin							<u>'</u>			
	<u> </u>	boxwork?noted in the field							<u> </u>	<b></b>		
<u> </u>	<u> </u>	laminae have pyrite flood,			L	<u> </u>	L		<u> </u>	<b></b>		
	<u> </u>	dark grey to brown to gree							<u> </u>			
<b> </b>	<u> </u>	scattered throughout poss			<u> </u>	ļ	ļ	<u> </u>	ļ	1		
<u> </u>	<u> </u>	lithologic control, size rang		ilum-coarse with		L			ļ	<b></b>		
Ŋ	ļ	rare large black intrusive?	fragments,				<b></b>		<u> </u>	<u> </u>		
	<b></b>					<b></b>				<b></b>		
<b></b>	<b>}</b>	14 80			<b></b>	ļ	<b></b>		<del> </del>	<b></b>		
ļ	<b></b>	weakly developed mm sc			<u> </u>	<u> </u>			<del> </del>	<b></b>		
<b></b>	<b> </b>	microfracture, rock is med			L	L			<b> </b>	<b> </b>		
J	<b></b>	weakly dolomitized with h	gnt brown dol	omite spotting,	<b> </b>	<b></b>	<b></b>	ļ	<b>.</b>	<b>.</b>		<b></b>
<b> </b>	<b> </b>	local ankerite spotting,			<b>_</b>	ļ	<b> </b>	ļ	<b> </b>	<b>}</b>		
<b></b>					00.4				<del> </del>	<del> </del>	505	
17.4	28 7	TUFF	41		20.4	22.4	2.0	<01	3	8	205	219
<u> </u>	<del> </del>	fine grained volcanic unit,				<del> </del>	<b> </b>		<del></del>	<b></b>		
<b> </b>	<del> </del>	rock does not have distinct			<del> </del>	<del> </del>	<b> </b>		<del> </del>	<del> </del>		<u> </u>
<b> </b>	<del> </del>	as above, rock is weakly s			<del> </del>	<del> </del>	ļ		<del> </del>	<del> </del>		
<b> </b>	}	calcite microveins tension				<b>}</b>	ļ		<del></del>	<del> </del>		<u> </u>
<b> </b>	<del> </del>	ated pyrite as replacemen				<u> </u>	<b></b>		<del> </del>	<b></b>		
<b> </b>	<del></del>	clast contacts, bedding n			[	ļ	<b> </b>	L	<del></del>	<del> </del>		
L	<u> </u>	fabric generally 75-80°tca	, texture is sit	nali lapillae,		<u></u>	<u></u>		1		<u> </u>	

Hole ID SC00-01 Page 2 of 3

From	To	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)	]	Ag	Cu	Pb	Zn	Ba
		often with sencite along selvages,	<u> </u>	<del></del>						
		23 70						<del>                                     </del>		
		0 5cm width chert band 90°tca,						<u> </u>		
28 7	52 1	VOLCANIC FLOW? SILL? DYKE? / TUFF	33 9	35 7	18	<01	4	11	79	32
		possible andesite?type flows, essentially same rock as	35 7	36 0	03	01	4	49	133	37
		above without tuff textures, more massive, fine grained						1		
		dark blue grey, flows occur within continuation of tuff						1		
		sequence above, weakly porphyritic - 10-15% small								
	l	phenos often calcareous strong reaction to HCI,								
		contacts with tuff sharp, no selvage or brecciation,						1		
		amygdules weakly imbricated 80-90°tca,				1				
		30 1-30 3								
		cherty bands, 90° tca,								
				``						
		30 70								
		Irregular lenses, possible relect fragments?replaced								
		with carbonate and clive green soft amorphous mineral-						1		
		apatite?			1				,	
		41 10								
		in places tuff unit has pale green colour possible chlorite								
		flood, overall rock is more silicified, increasing								
		downhole,								
52 1	58 9	52 1 - 58 9 TUFF								
		dominantly tuff package, fine grained, moderately								
		silicified, pale green-grey possible weak chlorite								
		flood, weak to moderate mm scale carbonate micro-								
		veining-tension gashes, local clear to white quartz								
		(chert?) bands-veins +/- carbonate, rock is looking								
		more felsic overall,					*			
58 9	60 7	BRECCIA	58 9	60 7	18	<01	4	11	41	27
		medium to medium large subangular clasts of light								
		green fine grained volcanics as above in fine grained								
		dark grey matrix, overall looks reworked or slumped								
		possibly, strongly silicified, 20% quartz with 5cm								
		width quartz bands-vein at 60°tca, trace disseminated					_			
		pyrite,						<u> </u>		

Hole ID SC00-01 Page 3 of 3

From	To	Description	From	To	Length			Analyses (ppm)		
(m)	(m)	·	(m)	(m)		Ag	Cu	Pb	Zn	Ba
60 7	75 9	TUFF								
		fine grained, light green-brown to grey, mm scale								
		carbonate microvein/ microbreccis, increasing quartz								
		silica flood, 10-20%								
75 9	84 2	RHYOLITE?	75 9	779	2.0	<01	5	14	127	25
		medium grey-brown, fine to medium grained more								
		massive heterolithic unit, strongly allicitied with 30-40%								
		grey quartz flood replacement of matrix and clasts, rock								
		has strong frosted nature making grain boundaries hard								
		to identify in places,								
		82 3-82 4								
	•	quartz-carbonate microbreccia-vein stockwork with								
		purple fluorite,								
84 2	104 50	VOLCANIC FLOW? SILL? DYKE? / TUFF/RHYOLITE								
		mixed tuff and andesite-rhyolite flows? general								
		increase in chlorite content as fine flood giving	1							
		individual sections pale to medium green colour;								
		rhyolite sequence continues to be strongly silicified								
		quartz flooded, weakly to moderately developed								
		carbonate-quartz veining and micro fracture, in places								
		carbonate is associated with fluorite relatively rare								
		occurrence, contact angles (bedding) between units is								
		steeper at 45°tca possibly indicating folding,								
							!			
		88 7 fluorite in quartz +/- carbonate								
		vein,								
			90.9	92.9	2.0	<01	3	11	37	74
		92 8-101 7								
ļ		darker grey medium grained ash?tuff, rock has better								
I		developed definition between grain boundaries, top of								
		interval at 92 8 has quartz carbonate plus or minus								
L		fluorite veining,								
<b> </b>		<u></u>	<u> </u>					L		
<b> </b>		101 7-104 5	400 5	4045	<u> </u>	<u> </u>				<u> </u>
<b> </b>	<b></b>	light grey-green fine grained tuff, 20% quartz flood,	102 5	104 5	20	<01	5	13	67	67
<b></b>										
<u> </u>		END OF HOLE 104 5m/343'				<u> </u>				
	L				L					

# Appendix IV

## **Analytical Results**



## BERNIE

# CERTIFICATE OF ANALYSIS iPL 00H1005

PREPARATION DESCRIPTION

2036 Columbia Street Vancouver, B C Canada V5Y 3E1 Phone (604) 879-7878 (604) 879-7898

INTERNATIONAL PLASMA LABORATORY LTD

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Analysis: ICP(AqR)30

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**Samples** 8

TYPE

AMOUNT

CODE

Out: Aug 28, 2000 In: Aug 21, 2000

[100514:05:48:00082800] PULP

REJECT

# Co 1 07 2 07 3 07 5 07 5 07 6 07 7 07 8 07	ode M 721 711 714 730 703 702 732	ICP ICP ICP ICP ICP ICP ICP	Units  ppm ppm ppm ppm ppm ppm ppm ppm	Descrip Ag ICP Cu ICP Pb ICP Zn ICP As ICP	ption	Element Silver Copper Lead Zinc Arsenic	Rep=Replicate M= Limit Low 0.1 1 2 1 5	Limit High 99.9 20000 20000	
# Co 1 07 2 07 3 07 5 07 5 07 6 07 7 07 8 07	ode M 721 711 714 730 703 702 732	ICP ICP ICP ICP ICP ICP ICP	Units  ppm ppm ppm ppm ppm ppm	Descrip Ag ICP Cu ICP Pb ICP Zn ICP As ICP	ption	Silver Copper Lead Zinc	Low 0.1 1 2 1	High 99.9 20000 20000	
1 07 2 07 3 07 4 07 5 07 7 07 8 07	721 711 714 730 703 702 732	ICP ICP ICP ICP ICP ICP	ppm ppm ppm ppm	Ag ICP Cu ICP Pb ICP Zn ICP As ICP		Silver Copper Lead Zinc	Low 0.1 1 2 1	High 99.9 20000 20000	
3 07 4 07 5 07 6 07 7 07 17 07	714 730 703 702 732	ICP ICP ICP ICP ICP ICP	ppm ppm ppm ppm	Cu ICP Pb ICP Zn ICP As ICP		Copper Lead Zinc	0.1 1 2 1	99.9 20000 20000	
3 07 4 07 5 07 6 07 7 07 17 07	714 730 703 702 732	ICP ICP ICP ICP ICP ICP	ppm ppm ppm ppm	Cu ICP Pb ICP Zn ICP As ICP		Copper Lead Zinc	1 2 1	20000 20000	
3 07 4 07 5 07 6 07 7 07 17 07	714 730 703 702 732	ICP ICP ICP ICP ICP	ppm ppm ppm	Pb ICP Zn ICP As ICP		Lead Zinc	2 1	20000	
4 07 5 07 6 07 7 07 8 07	730 703 702 732	ICP ICP ICP ICP	ppm ppm	Zn ICP As ICP		Zinc	1		
5 07 6 07 7 07 8 07	703 702 732	ICP ICP ICP	ppm	As ICP				20000	
6 07 7 07 8 07	702 732	ICP ICP	ppm				<u> </u>	9999	
7   07  8   07  9   07	732	ICP		C4 TC0			J	3333	
7   07  8   07  9   07	732	ICP				Antimony	5	999	
8 07	732 717			Sb ICP			ິ່ງ		
9   07	/1/	TCD							
9   0 /	747				(I				
~ I ~ ~	/4/ 705				(Incomplete Digestion)				
יטןט.	/05	ICP	ppm	B1 ICP		Bismuth	2	9999	
.		***		01.700		0 1		00.0	
.1 0/	/0/								
2 0	710							9999	
.3 07	718	ICP							
4107	704						2		
5 07	727	ICP	ppm	W ICP	(Incomplete Digestion)	Tungsten	5	999	
6 07	709	ICP	ppm	Cr ICP	(Incomplete Digestion)	Chromium	1	9999	
.7 07	729	ICP	ppm	V ICP	•	Vanadium	2	9999	
8107	716	ICP	ppm	Mn ICP		Manganese	1	9999	
.9 07	713	ICP		La ICP	(Incomplete Digestion)	Lanthanum	2	9999	
0   07	723	ICP	ppm			Strontium	1	9999	
1 0	731	TCP	nnm	7r ICP		7irconium	1	QQQQ	
2 0	736	TCD		Sc TCP		Scandium			
2 0	736 726				(Incomplete Digestion)				
A In	701		_				0.01		
E 10	700						0.01		
.3 0/	700	101	•	Ca ICF	(Theoliprete Digestron)	Carcium	0.01	3.33	
26 07	712	ICP	*	Fe ICP		Iron	0.01	9.99	
27   07	715	ICP	*	Mg ICP	(Incomplete Digestion)	Magnesium	0.01	9.99	
8 07	720		*	K ICP	(Incomplete Digestion)	Potassium		9.99	
9 07	722		*			Sodium		5.00	
olo	719		*						
						·			
	9 0 0 123 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 0717 9 0747 0 0705 1 0707 2 0710 3 0718 4 0704 5 0727 6 0709 7 0729 8 0716 9 0713 10 0723 11 0731 12 0736 13 0726 14 0701 15 0708 16 0712 17 0715 18 0720 19 0722 10 0719	8 0717 ICP 9 0747 ICP 0 0705 ICP 1 0707 ICP 2 0710 ICP 3 0718 ICP 3 0718 ICP 4 0704 ICP 5 0727 ICP 6 0709 ICP 7 0729 ICP 8 0716 ICP 9 0713 ICP 10 0723 ICP 11 0731 ICP 12 0736 ICP 13 0726 ICP 14 0701 ICP 15 0708 ICP 16 0712 ICP 17 0715 ICP 18 0720 ICP 19 0722 ICP	17   0732   ICP   ppm	17   0732   ICP   ppm   Hg ICP   Ppm   Mo ICP   Ppm   T1 ICP   Ppm   T1 ICP   Ppm   T1 ICP   Ppm   T1 ICP   Ppm   T2 ICP   Ppm   T3 ICP   Ppm   T4 ICP   Ppm   T4 ICP   Ppm   T5 ICP   Ppm   T5 ICP   Ppm   T6 ICP   Ppm   T6 ICP   Ppm   T7 ICP   T7 ICP	17   0732   ICP   ppm   Hg ICP   ppm   Mo ICP   ppm   Mo ICP   ppm   T1   ICP   ICP   ppm   T1   ICP   ICP   ppm   T1   ICP   ICP   ICP   ppm   T1   ICP   ICP   ICP   ppm   ICP   ICP   ppm   ICP   ppm   ICP   ICP   ppm   ICP   ICP   ppm   ICP   ICP   ppm   ICP   ICP   ICP   ppm   ICP   ICP   ppm   ICP   ICP   ICP   ICP   ICP   ppm   ICP   ICP   ppm   ICP   ICP   ppm   ICP   ICP	17   0732   ICP   ppm   Hg ICP   Molydenum     18   0717   ICP   ppm   Mol ICP   Molydenum     19   0747   ICP   ppm   Ti ICP (Incomplete Digestion)   Thallium     10   0705   ICP   ppm   Cd ICP   Cadmium     11   0707   ICP   ppm   Co ICP   Cobalt     12   0710   ICP   ppm   Co ICP   Nickel     13   0718   ICP   ppm   Ni ICP   Nickel     14   0704   ICP   ppm   Ni ICP   ppm   Ni ICP     15   0727   ICP   ppm   W ICP (Incomplete Digestion)   Tungsten     16   0709   ICP   ppm   V ICP   Vanadium     17   0729   ICP   ppm   Mn ICP   Manganese     18   0716   ICP   ppm   Mn ICP   Manganese     19   0713   ICP   ppm   La ICP (Incomplete Digestion)   Strontium     10   0723   ICP   ppm   Zr ICP   Scandium     11   0731   ICP   ppm   Zr ICP   Scandium     12   0736   ICP   ppm   Sc ICP   Scandium     14   0701   ICP   % Ti ICP (Incomplete Digestion)   Titanium     14   0701   ICP   % Ti ICP (Incomplete Digestion)   Calcium     15   0708   ICP   % Ti ICP (Incomplete Digestion)   Calcium     16   0712   ICP   % Fe ICP   Iron     17   0715   ICP   % Mi ICP (Incomplete Digestion)   Potassium     18   0720   ICP   % K ICP (Incomplete Digestion)   Potassium     19   0722   ICP   % K ICP (Incomplete Digestion)   Sodium     17   0715   ICP   % K ICP (Incomplete Digestion)   Sodium     18   0720   ICP   % K ICP (Incomplete Digestion)   Sodium     17   0715   ICP   % K ICP (Incomplete Digestion)   Sodium     18   0720   ICP   % K ICP (Incomplete Digestion)   Sodium     17   0715   ICP   % K ICP (Incomplete Digestion)   Sodium	17   0732   ICP	17   0732   ICP   ppm   Hg ICP   Mercury   3   9999   999

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BC Certified Assayer: David Chiu

# China Control

# CERTIFICATE OF ANALYSIS iPL 00H1005

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8 Samples 8=PuTp

[100514:05:48:00082800]

Out: Aug 28, 2000 In: Aug 21, 2000 Page 1 of 1 Section 1 of 1

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm		Mo ppm	T1 ppm	B1 ppm	Cd ppm	Co		Ba ppm	pp <b>m</b>	Cr ppm	ppm V	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	T1 *	A1 %	Ca %	Fe %	Mg %	K %	Na %	P X	
5.2- 7 3 20.4- 22.4 33.9- 35.7 35.7- 36.0 58.9- 60.7	P P P	< < < < < 0.1 <	16 3 4 4 4	30 8 11 49 11	118 205 79 133 41	<	< < < <	< <	4 13 4	< < < <		5.2	8 4 3 2 2	6 8 4 6 1	93 219 32 37 27	< < < < <	7 21 23 48 31	4 4 3	2318 1614 1518 1095 1610	61 99 116 83 88	7 169 96 141 423	20 5 8 4 4	1 1 1 1	< 0 < 0 < 0	.51 .33 .59	2.15 1.43 2.03	3.72 2.82	0.33 0.33 0.20	0.29 0.27 0.22	0.01 0.01 0 01	0.02 0.02 0.01 0.01	
75.9- 77.9 90.9- 92.9 102.5-104.5	Р Р Р	< < <	5 3 5	14 11 13	127 37 67	< < <	< < <	< < <		< < <	< < <	5.8 5.1 5.7	2 1 2	< 6 5	25 74 67	< < <	41 17 23	4	1818 1770 1794	125 145 148		13 6 5	1 < 1	< (	.26	2.21	4.03	0.15	0.23	0.02	0.02 0.03 0.03	



105 Copper Road Whitehorse, Yukon Y1A 2Z7

Ph: (867) 668-4968 Fax: (867) 668-4890

E-mail: NAL@hypertech.yk.ca

18/08/2000

Certificate of Analysis

Page 1

Bernie Kreft

WQ# 00102

Certified by \_

	Comple #	Au	
	Sample #	ppb	
	5.2-7.3	7	
	20.4-22.4	11	
•	33.9-35.7	11	
	35.7-36.0	8	
•	58.9-60.7	12	
	75.9-77.9	13	
	90.0-92.9	8	
	102.5-104.5	128	



PREPARATION DESCRIPTION

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409 Samples

TVPF

CODE AMOUNT

Out: Jul 24, 2000 In: Jul 18, 2000

[077716:49:39:00072400] PHIP

REJECT

	B3	CODE 31100	AMOUN 1 409	Pu]p	PREPARATION DESCRIPTION Pulp received as it is, no sample prep.			12M/Dis 00M/Dis
		Δna	lytical	Summa	rv	NS=No Sample	Rep=Replicate M=	Month Dis=Discard
	##	Code	Method	Units	Description	Element	Limit Low	Limit High
	02 03	0721 0711 0714	ICP ICP ICP	ppm	Ag ICP Cu ICP Pb ICP	Silver Copper Lead	0.1 1 2	99.9 20000 20000
C IN FX 1 1 0	05		ICP ICP	ppm	Zn ICP As ICP	Zinc Arsenic	1 5	20000 9999
M BT BL 0 0 0 668-4968 668-4890	07 08 09	0732 0717 0747	ICP ICP ICP ICP ICP	ppm ppm	Sb ICP Hg ICP Mo ICP Tl ICP (Incomplete Digestion) Bi ICP	Antimony Mercury Molydenum Thallium Bismuth	5 3 1 10 2	999 9999 999 999 9999
ch.yk.ca	11 12 13 14	0707 0710 0718 0704	ICP ICP ICP ICP	ppm ppm ppm ppm	Cd ICP Co ICP N1 ICP Ba ICP (Incomplete Digestion)	Cadmium Cobalt Nıckel Barium	0.1 1 1 2	99.9 9999 9999 9999
	16 17 18 19	0727 0709 0729 0716 0713 0723	ICP ICP ICP ICP ICP ICP	ppm ppm ppm ppm	W ICP (Incomplete Digestion)  Cr ICP (Incomplete Digestion)  V ICP Mn ICP La ICP (Incomplete Digestion) Sr ICP (Incomplete Digestion)	Tungsten Chromium Vanadium Manganese Lanthanum Strontium	5 1 2 1 2	999 9999 9999 9999 9999
	22 23 24	0731 0736 0726 0701 0708	ICP ICP ICP ICP ICP	ppm *	Zr ICP Sc ICP Ti ICP (Incomplete Digestion) Al ICP (Incomplete Digestion) Ca ICP (Incomplete Digestion)	Zirconium Scandium Titanium Aluminum Calcium	1 0.01 0.01 0.01	9999 9999 1.00 9.99 9.99
	27 28 29	0712 0715 0720 0722 0719	ICP ICP ICP ICP ICP	* * *	Fe ICP Mg ICP (Incomplete Digestion) K ICP (Incomplete Digestion) Na ICP (Incomplete Digestion) P ICP	Iron Magnesium Potassium Sodium Phosphorus	0.01 0.01 0.01 0.01 0.01	9.99 9.99 9.99 5.00 5.00

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BC Certified Assayer: David Chiu

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INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories Project: WO# 00065

409 Samples 409=Pulp

[077716:49:39:00072400]

Out: Jul 24, 2000 In: Jul 18, 2000 Page 7 of 11 Section 1 of 1

Sample Nam	ne	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm		Hg ppm	Mo pm p		Bi ppm	Cd ppm	Co ppm	N1 ppm	Ba ppm p		Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca ∦	Fe %	Mg %				
PPMS-178 PPMS-179 PPMS-180 PPMS-181 PPMS-182	Р Р Р	0.4 0.4 0.3 0.3 0.5	56 30 112 27 46	46 18 20 23 52	347 100 77 77 120	< < < <	< < < <	< < <	11 8 19 7 10	< < < < <	< < <	6.5 5.2 5.9 4.6 5.4	37 11 6 8 5	29 29 8 8 7	888 95 52 142 204	< < < < <	3 3 < 5 1	3 3	6368 1306 468 1168 535	28 104 49 46 20	17 7 2 9 21	5 3 4 1 2	2 0	< < <	0.76	0.20 0.05 0.06	4.08 4.94 3 49	0.05 0.07	0.14 0.07 0.11	0.02	0.04 0.01 0.07	l 7
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PPMS-188 PPMS-189 PPMS-190 PPMS-191 PPMS-192	Р Р Р	3 6 1.4 1 6 15.4 0.2	72 45 54 164 17	1115 516 450 8802 126	224 1000 740 586 266	219 55 52 241	< < < <	<	13 7 10 7 2	< < < < <	< < <	8.5 18.6 11.7 10.7 3.6	3 7 7 7 8	7 4 12 5 16	62 141 82 75 126	< < < < < < < < < < < < < < < < < < <	< < < 17	6 5	83 2384 840 1230 763	4 10 8 51 19	15 29 23 30 10	3 3 2 1	<	< < <	0.34 1.14 1.05 0.55 0.95	0.10 0.08 0.26	8.58 9.04 7.38	0.18 0.12	0.35 0.56 0.27	0.02 0.02	0.05 0.05 0.04	5
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409 Samples 409=Pulp

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Sample	Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm		_	Mo T1		Cd ppm	Co ppm	Na ppm	Ba ppm pp	W Ci m ppr		V M	In La m ppm		Zr ppm	Sc ppm	Ti %	Al \$			Mg ≵	K *		P X
100W 100W 200E 200E 200E	325S P 350S P 150S P 200S P 225S P	0.4 0.3 0.2	12 43 65 149 75	28 66 44 123 90	108 186 227 213 73	< < < <	< < <	< < < <	7 < 6 < 3 < 1 < 2 <	< < <	4.8 5.7 4.1 6.8 5.8	6 27 17 52 32	13 27 26 87 36	349 318	< 1. < 1. < 1. < 1. < 1. < 1. <	1 4 1	12 103 31 114 36 29 24 19 28 18	5 17 0 16 2 17	83 43 166	2 1 1 2 1	11	0.01 <	0.67 0.62 0.92	0.30 0.06 0.36 0.19 0.08	4.45 3.35 6.23	0.13 0.10 0.23	0.29 0.16 0.26	0.03 0.03 0.02	0.12 0.10 0.22
200E 200E 200E 200W 200W	250S P 275S P 300S P 275S P 300S P	0.1 0.1 <	141 160 128 38 60	94 132 132 9 18	128 74 118 48 171	< < <	<	< < < < <	3 < 3 < 2 < 3 < 3 < 3 < 3 < 3 < 3 < 3 <	<	7.4 9.5 11.0 1.9 3.7	62 75 72 20 15	78 91 27	49 645		4 1 4	28 25 27 60 35 105 16 39 23 42	1 17 1 16 5 3	16	3 1	17	< 0.01	1.19 1.07 0.39	0.18 0.08 0.11 0.39 0.90	8.62 9.10 1.58	0.41 0.17 0.11	0.43 0.14 0.06	0.04 0.02 0.04	0.21 0.22 0.04
200W 200W 300E 300E 300E	325S P 350S P 150S P 175S P 200S P	0.3 0.4 0.6	13 16 24 27 28	34 44 117 293 74	282 114 64 54 90	<		< < < <	6 < 10 <	<	7.0 3.6 4.5 7.3 4.6	5 10 11 12 12	12 16 25	441 172 121	< 4	4 4 3	10 124 24 165 24 135 15 99 34 72	0 8 1 40 5 49	36 25 25	2 1 1 2 1	1 (	0.01 0.02 0.01	0.53 0.59 0.48	0.15 0.15 0.06 0.01 0.03	2.83 3.81 6.79	0.06 0.09 0.04	0.10 0.26 0.60	0.03 0.03 0.02	0.07 0.07 0.06
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300W 300W 300W 300W 400E	275S P 300S P 325S P 350S P 150S P	0.2 0.8 0.4	51 22 24 12 14	28 8 80 76 50	227 111 144 72 103		<	< < <	3 < 15 < 13 < 8 <	<	5.2 3.6 4.0 3.0 3.9	21 5 6 5 6	15 23 13	918 354 175	< !	6 5	32 79 18 16 34 44 10 115 8 89	2 7 5 20 6 20	42 80 53	1 2 1 1 1	3 ( 1 1 (	0.01 < 0.01	0.76 0.42 0.33	0.12 0.68 0.13 0.08 0.07	1.34 2.85 2.72	0.16 0.05 0.03	0.06 0.19 0.14	0.04 0.02 0.02	0.10 0.08 0.06
400E 400E 400E 400E 400E	200S P 225S P 250S P	0.5 0.9 3.3	19 20 18 58 17	47 62 101 297 37	110 258 142 215 145	<ul><li>13</li><li>88</li><li>16</li></ul>	< < <	< < :	11 <	·	4.3 6.4 3.2 11.6 3.1	8 9 3 5 3	15 15 7 23 15	205 279	<	2 3 1 13	19 122 16 143 90 18 395 10 86 35	1 48 7 14 7 13	60 153	1 2 1 3 2	1	< < <	0.47 0.47 0.59	0.15 0.09 0.02 0.04 0.18	4.58 2.61 8.67	0.05 0.02 0.02	0.19 0.18 0.90	0.02 0.02 0.04	0.07 0.13 0.31
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500W 500W 500W 500W 600E	275S P 300S P 325S P 350S P 200S P	0.1 0 4 0.3	11 3 51 58 48	29 33 29 30	115 111 262 246 2031	<		< < < < <	6 5	< < <	<	2.1 8.4 7.1	2 25 27 19	7 4 35 39 57	128 87 576 578 246	V V V V	1 10 10 16	9 27 29	156 43 1352 1436 613	6 2 14 12 12	21 13 37 35 24	1 1 2 1 2	6 7	.02   >   >	0.37 0.67 0. <i>6</i> 2	0.07 0.23 0.35 0.35 0.67	0.32 4.40 4.68	0.05 0.16 0.16	0.02 0.10 0.13	2 0.05 ) 0.02 3 0.02	0.0 0.1 0.1	4 0 0
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ample	Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm			Mo T				Ni ppm	Ba ppm p		Cr ppm	P <b>D</b> M	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	A1 *		Fe %	Mg ∦	N X	Na 3	
600W 600W 600W 600W	25N F 50N F 75N F	0.2 0.3 0.5 0.1 3.8	32 11 17 4 18	17 17 17 2 409	187 115 469 47 127	< <	< < < < <	< < < <	2 .	<	5.1 3.6 6.2 0.6 3.2	4 9 9 1 4	8 8 7 3 15	166 124 313 64 135	V V V V	5 4 2 1 9	15 15 14 6 23	712 780 689 108 88	11 13 11 2 11	20 22 31 14 35	2 2 2 1 1	5 4 3 < 0	<pre></pre>	).44 ).50 ).37	0.80 1.15 0.75	2.62 2.31 0.47	0.13 0.13 0.10	0.05 0.04 0.02	0.02	0.09 0.16 0.19 0.06 0.21
600W 600W 600W 600W	75S F 100S F 125S F	0.3	21 42 21 9 4	869 41 16 33 5	1680 143 124 52 62	< < <	< < < < < <	< < < < < < < < < < < < < < < < < < <	5 4 2	<	19.3 7.4 4.3 2.6 1.1	13	20	82 266 236 191 68	< < < < < <	3 8 3 3	32 26	822 2058 1233 308 94	14 7 19 11 3	35	1 3 2 2 <	5 7 8 2 <	< ( < (	).54 ).56 ).44	1.04 1.29 0.76	5.39 3.22 1.72	0.17 0.17 0.11	0.04 0.05 0.06	0.02 0.02 0.03	0.18 0.11 0.36 0.14 0.04
600W 600W 600W 600W	2005 F 2255 F 2505 F	0.1 0.1 0.1	7 7 13 13 19	22 3 22 18 29	21 28 92 90 85	< < <	< < < < <	< < < <	1 2 3	<	1.0 1.1 3.8 3.2 2.6	2 2 7 7 5	8 6 18 21 21	142 118 86 194 351	<	5 3 19 19 16	16 23 48 40 37	47 96 257 226 146	2 4 9 11 12	16 12 12 16 34	< 1 1 1	2 0 1 0	.01 ( .03 (	).39 ).89 ).97	0.13 0.08 0.13	0.84 2.64 2.21	0.05 0.21 0.27	0.03 0.05 0.05	0.04 0.02 0.02	0.05 0.04 0.03 0.03 0.04
600W 600W 600W 700E 700E	3255 F 3505 F ON F	0.3	3 21 29 25 34	2 24 43 32 60	8 387 366 195 499	< < 5 14		< < < < < < < < < < < < < < < < < < <	2 8 5	<	0.5 7.8 6.8 3.0 8.3	1 7 7 5 6	1 28 27 19 32	444		1 20 17 6 6	10 31 38 27 78	18 198 366 317 233	10 15 6 5	7 51 80 41 99	< 2 3 3 3 3	2 0 2 0	.01 ( .01 (	).74 ).75 ).71	0.50 0.42 0.61	2.07 2.75 1.34	0.28 0.23 0.12	0.07 0.11 0.09	0.02 0.02 0.03	0.02 0.08 0.09 0.10 0.10
700E 700E 700E 700E 700E	75N   100N   125N	0.9	4 59 41 18 27	179 218 170 378	21 573 537 291 391	18 16 <		< < <	13 9	<	0.8 12.2 9.4 7.4 7.8	2 6 5 3 5	3 41 33 17 25	31 888 524 363 472	< < < < < <	2 12 9 5 8	16 139 81 58 68	32 521 190 141 204	< 9 8 5 8	222 138 90	<ul><li>5</li><li>4</li><li>2</li><li>2</li></ul>	< 0 4 2 1 2	< : < (	1.02 ).76 ).51	0.63 0.51 0.51	2.19 2.09 1.30	0.12 0.11 0.11	0.09 0.09 0.07	0.02 0.02 0.03	0.03 0.15 0.14 0.12 0.12
700E 700E 700E 700E 700E	50S I 75S I 100S I		24 64 7 12 8	16 138 5 < 4	404 942 53 133 92	19 < <	< < < < <	<	18 < 2	<	2.6 12.0 1.2 1.7 1.7	7 3 3	23 40 5 11 5	255 268 52 112 78	< < < < < < < < < < < < < < < < < < <	7 6 2 5 4	20 77 25 17 20	297 292 63 97 68	6 6 2 3 3	21 80 14 16 14	2 3 1 1 1	4 < 0 1 0	.04 ( 0.04 ( 0.01 (	).57 ).40 ).47	0.32 0.28 0.44	3.39 0.83 0.80	0.09 0.06 0.09	0.08 0.02 0.03	0.02 0.04 0.04	0.08 0.08 0.06 0.06 0.05
700E 700E 700E 700E 700E	1755   2005   2255	2 1.8 2 2.3 2 1.2	20 57 39 38 72	22 21 18 13	216 786 748 337 533	< < <		< < <	10 6 6	<	2.2 5.1 5.7 3.2 3.9		16 59 47 34 61	534	< <	4 10 13 15 13	28	152 418 1039 326 314	4 13 12 10 12	19 12 19 12 13	2 2 1 1 2	4 0 3 0 2 0	.01 ( .01 (	).63 ).68 ).79	0.19 0.58 0.38	2.86 2.52 1.97	0.12 0.15 0.15	0.07 0.08 0.05	0.02 0.02 0.02	0.05 0.08 0.09 0.04 0.06
700E 700E 700E 800E	300S F 325S F	0.6	38 58 29 28	13 25 30 30	218 357 97 279	18 14	< < <	< <	23 13	<	2.8 5.4 2.4 3.7	17 6	49 24	391 218 109 372	< <	11 8 5 19	27	200 678 85 427	9 8 12 10	13 47 17 20	1 1 1	2 1	< (	).49 ).44	0.12	2.86 2.07	0.09	0.08	0.02	0.08 0.08 0.06 0.08



2036 Columbia Street Vancouver, B C Canada V5Y 3E1 Phone (604) 879-7878 Fax (604) 879-7898

INTERNATIONAL PLASMA LABORATORY LTD

Client: Northern Analytical Laboratories Project: WO# 00065

409 Samples 409=Pulp

[077716:49:39:00072400]

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Sample N	lame	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	_	Mo 7 ppm pp	m	B1 ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm 1	W mqq	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	A7	Ca *	Fe %	Mg X	K %	Na X	P X
800E 800E 800E 800E 800E	25N P 50N P 75N P 100N P 125N P	1.9 0.9 0.6	19 46 24 14 10	23 49 22 12 6	60 700 281 142 83		<	< <	15 6 2	< < < < < <	< < <	0.8 7.7 4.5 2 4 2.1	3 8 6 3 3	5 50 24 13 9	285 313 418 269 251	V V V V	3 10 13 6 7		177 225 238 167 78	4 7 6 5 4	16 47 37 30 18	1 2 2 2 1	3 1 ( 1 (	> 0.01 0.01	0.53 0.70 0.52	0.29 0.38 0.54 0.73 0.23	2.53 1.59 0.88	0.14 0.17 0.14	0.07 0.05 0.04	0.02 0.03 0.04	0.10 0.10 0.08
800E 800E 800E 800E 800E	150N P 25S P 50S P 75S P 100S P	2.2 3.7 0.7	33 41 53 22 37	62 24 29 18 23	428 501 705 258 575	10 5 16 <	< < < < < <	<	11 6 3	< < < < < < < < < < < < < < < < < < <	< < <	4.9 3.7 5.0 2.7 3.3	7 11 15 8 10	37 55 73 23 44	360 376 267 178 315	V V V V	9 18 18 10 11	45 33 23 27 20	266 270 398 310 423	9 13 9 7 10	42 20 19 20 18	1 3 3 1	5 ( 6 1 (	0.01 < 0.02	0.69 0.69 0.72	0.29 0.44 0.35 0.48 0.47	2.52 3.29 1.78	0.21 0.20 0.18	0.08 0.08 0.04	0.02 0.02 0.03	0.09 0.08 0.07
800E 800E 800E 800E 800E	125S P 150S P 175S P 200S P 225S P	1.4 1.0 0.6	44 57 30 32 27	23 25 22 16 18	1035 1052 399 230 228	14 11 < 8 10		< < < <	2 4 12	< < < < < < < < < < < < < < < < < < <	< < <	4 3 4.2 4.1 3.8 3.7	14 15 18 10 10	73 70 41 34 29	319 243 200 150 283	V V V V	12 13 20 11 9		929 558 812 252 422	9 8 11 11 9	13 5 10 14 26	1 1 1 1 2	3 2 2	0.01 0.01	0.62 0.95 0.52	0.28 0.17 0.09 0.12 0.33	2.86 2.55 2.30	0.11 0.23 0.12	0.06 0.06 0.07	0.01 0.01 0.02	0.06 0.04 0.05
800E 800E 800E 800E	250S P 275S P 300S P 325S P	0.1 0.2	35 63 57 81	21 25 62 55	130 246 166 157	32 19 12 5	<		12	< < < <	< <	2.8 3.7 4.8 4.8	11 24 28 34	39 60 83 90	232 144 414 424	<b>~ ~ ~ ~ ~</b>	6 9 22 15	30	188 1178 3719 5122	11 9 17 12	23 6 23 22	1 2 2		o.01	0.64 1.14	0.09 0.02 0.59 1.04	3.08 3.53	0.04 0.34	0.04 0.07	0.02 0.02	0.08 0.11

